

REMARKS

This Preliminary Amendment, filed in conjunction with a Request for Continued Examination ("RCE"), represents a full and timely response to the Final Office Action mailed October 19, 2005 (Paper No. 20040311) and the Advisory Action mailed January 3, 2006. The filing of this RCE and Amendment is permissible under 37 C.F.R. § 1.114. *See* M.P.E.P. § 706.07(h).

New Claims

Support for new claims 7-12 can be found variously throughout the specification, including, for example, page 5, line 14 to page 6, line 9 and page 19, line 20 to page 20, line 7. Since each of these new claims is clearly distinguishable from the applied art of record, allowance of the same is courteously solicited.

Claim Rejections- 35 U.S.C. § 103

In the Advisory Action, claims 1-6 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,087,888 to Inokuchi ("Inokuchi") in view of U.S. Patent No. 5,659,264 to Ariyoshi et al. ("Ariyoshi") in view of U.S. Patent No. 6,239,625 to Abe (Abe). This rejection is respectfully traversed.

As detailed on page 2 of the specification, conventional power amplifiers operate normally at room temperature but exhibit problems when the ambient temperature changes. Specifically, compared to room temperature operation, the bias current of the conventional power amplifier changes when the ambient temperature is lower or higher which results in deterioration of the linearity of the convention power amplifier. The present invention solves the above problems by providing resistance elements with different temperature coefficients arranged in such a way that the power amplifier is supplied with the optimum bias voltages in accordance with each temperature. As a result, linear operation of the power amplifier is independent of ambient temperature. Furthermore, because the present invention also includes variable resistance elements, the bias current of the FET within the power amplifier can be set voluntarily.

Claim 1

With respect to the rejection of claim 1, it has been conceded in the Action that Inokuchi **does not** disclose a second resistance element with a temperature coefficient smaller than that of the first resistance element. *See, e.g.*, page 3 of Action. Consequently, in order for a *prima facie* case of obviousness to be successfully established, not only must Ariyoshi or Abe teach of a second resistance element with a temperature coefficient smaller than that of the first resistance element, but Ariyoshi or Abe must provide sufficient motivation to combine this teaching with the circuit of Inokuchi. However, Ariyoshi, Inokuchi and Abe clearly lack the necessary motivation or teaching to combine or modify the references in the manner suggested in the Action.

As established by Federal Circuit precedent, to establish a *prima facie* case of obviousness, the Action must provide some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. *See, e.g., Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) (“To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references”); *In re Geiger*, 815 F.2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987) (“When a rejection depends on a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references”; *ACS Hosp. Sys. v. Montefiore Hosp.*, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984) (“Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination”); *accord*. MPEP 2143.

It is established law that one “cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.” *Ecolchem, Inc. v. Southern Cal. Edison Co.*, 227 F.3d 1361, 1371, 56 USPQ2d 1065 (Fed. Cir. 2000) (citing *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ2d 1780, 1783 (Fed. Cir. 1988)). Indeed, “[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the

inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability – the essence of hindsight.” *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Moreover, “[t]he mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.” *In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).

In the present case, one of ordinary skill in the art would not be led to modify the circuit of Inokuchi to include a second resistor with a temperature coefficient smaller than that of the first resistor—the resulting circuit would have duplicate temperature drift compensating circuits. Indeed, Inokuchi provides an opposite motivation by disclosing a temperature compensating circuit including a temperature compensating FET that becomes conductive when the electric potential at its gate node is shifted in the positive direction. *See, e.g.*, col. 6, lines 24-35.

In fact, if one were to combine Inokuchi and Ariyoshi as suggested in the Action, the principle operation of the temperature compensating FET in Inokuchi would change because the electric potential at the temperature compensating FET's gate would have a negative temperature drift coefficient and the temperature compensating FET would not conduct with a rise in temperature rendering the compensating circuitry in Inokuchi useless. As established by the federal courts, if the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *See, e.g., In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959); *accord.* MPEP 2143.01. In essence, **the Action has failed to point to any portion of either Inokuchi or Ariyoshi as suggesting that the circuit of Inokuchi should be modified to include a second resistor element with a temperature coefficient smaller than that of the first resistance element.** The Advisory Action alleges that Ariyoshi provides the requisite motivation to combine within col. 2, lines 5-16. However, nothing in this teaching suggests combination with a circuit like Inokuchi which compensates for temperature drift with a temperature compensating FET.

Accordingly, because neither Inokuchi, Ariyoshi nor Abe provide sufficient motivation for combining and modifying the references in the manner indicated and any attempt to combine the alleged teaching of Ariyoshi, with those of Inokuchi destroys a main object of the Inokuchi

invention, the applied art is clearly inadequate, resulting in the Action having failed satisfy the burden of establishing a *prima facie* case of obviousness. Withdrawal of the rejection of claim 1 is therefore courteously solicited.

Claim 3

For the reasons essentially similar to those set forth above with respect to the rejection of claim 1, Inokuchi, Aryoshi and Abe lack the requisite motivation to combine the reference teachings, such that the examiner has failed to provide sufficient motivation for combining these references. Accordingly, a *prima facie* case of obviousness has not been established with respect to claim 3, and withdrawal of this rejection is respectfully requested.

Claim 5

Claim 5 recites, *inter alia*, a power amplifier comprising a second resistance element with a **temperature coefficient smaller than that of the first resistance element**, a third resistance element with a temperature coefficient smaller than that of the first resistance element.

In contrast, it is conceded in the Office Action that Inokuchi fails to disclose a second resistance element with a temperature coefficient smaller than that of the first resistance element and a third resistance element with a temperature coefficient smaller than that of the first resistance element.

Further, although Ariyoshi arguably discloses three resistance elements arranged such that a resistor having a small temperature coefficient is disposed on the side of the dividing resistance closer to the ground, Ariyoshi fails to disclose, teach or suggest at least a second resistance element with a temperature coefficient smaller than that of the first resistance element as disclosed in claim 5. *See, e.g.*, Fig. 8 and col. 5, lines 39-46. In fact, Ariyoshi teaches that a first resistance element (R5) and a second resistance element (R6) have temperature coefficients equal in value and larger than the temperature coefficient of the third resistance element (r1). *See, e.g.*, col. 5, lines 8-12 and lines 24-26.

In Addition, although Abe arguably discloses a high frequency power detection circuit including a variable resistor, Abe fails disclose, teach or suggest *at least a second resistance*

element with a temperature coefficient smaller than that of the first resistance element as recited in claim 5. *See, e.g.*, col. 6, lines 39-45.

Moreover, for the reasons essentially similar to those set forth above with respect to the rejection of claim 1, Inokuchi, Ariyoshi and Abe also lack the requisite motivation to combine the reference teachings, such that the examiner has failed to provide sufficient motivation for combining these references.

Accordingly, because Inokuchi, Ariyoshi and Abe, either alone or in combination, fail to disclose, teach or suggest each and every limitation of claim 5 and they lack the requisite motivation to combine the reference teachings, a *prima facie* case of obviousness has not been established, and withdrawal of this rejection is respectfully requested. *See, e.g., In re Royka*, 490 F.2d 981; *accord.* MPEP 2143.03.

Conclusion

For at least the foregoing reasons, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the examiner is respectfully requested to pass this application to issue. If the examiner has any comments or suggestions that could place this application in even better form, the examiner is invited to telephone the undersigned attorney at the below-listed number.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 18-0013, under Order No. SON-2950 from which the undersigned is authorized to draw.

Dated:

1/17/2006

Respectfully submitted,

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